

REMARKS/ARGUMENTS

Claims 38-39 are new.

Claims 1-17 remain cancelled.

Support for each new and amended claim is found at the originally filed claims and throughout the originally filed specification. Additionally, support for the amendment of present Claims 33 and 34 is found, for example, at page 12 of the originally filed specification. No new matter is believed to have been added.

The patentable subject matter rejection of Claims 27-28 and 33-34 is believed to be obviated by amendment of these claims.

The indefiniteness rejection of Claims 27-28 and 33-34 is believed to be obviated by amendment of these claims.

The obviousness rejection of Claims 18-37 as being unpatentable in view of Haberle and Horodysky is respectfully traversed because the references do not describe or suggest all of the claim elements, because there is not sufficient motivation to combine the references, and because there is no *bona fide* expectation of success.

A reason to combine references, description or suggestion of all claim elements, and expectation of success are basic parts of an obviousness rejection (see MEPE 2143).

Additionally, as described in Graham v. John Deere Co., the level of (and therefore knowledge available to) one of ordinary skill in the art must be taken into account when making an obviousness rejection.

In the present case, the Office is trying to combine art from two very diverse art fields. Haberle is drawn to the field of polymers whereas Hordysky is drawn to the field of fuels. Applicants submit that one of ordinary skill in the art would not be motivated to combine references from such diverse fields as polymers and fuels, because one of ordinary skill in the art in the field of, for example, polymers would not, with reasonable common

sense, be aware of references in the field of fuels such as Hordysky. Withdrawal of the obviousness rejection is requested on this basis alone.

Further, all of the claim elements of, for example, present Claim 18 are not described or suggested by the combination of the references. Applicants note that neither Haberle nor Hordysky describe or suggest a carbamothioate group which is an element of, for example, present Claim 18.

Hordysky describes a thioester. Applicants note that the chemical arts are not predictable, and that the stability of a thioester (as compared to an ester) cannot predictably be extrapolated to a different functional group (e.g., to the stability of a carbamate versus a carbamothioate), as the Office is attempting to do.

The Office, at page 4 of the Official action, has asserted that “oxygen and sulfur are chalcogens and are essentially interchangeable in this capacity.” Besides being merely the opinion of the Office, which the Office has not substantiated, Applicants note that if oxygen and sulfur were “essentially interchangeable,” then the exchange of oxygen for sulfur or vice versa would be expected to have no effect on the chalcogen exchanged molecule.

As such, the Office is paradoxically and simultaneously arguing on one hand that chalcogens are “essentially interchangeable,” and thus expected to produce compounds with identical properties, as “essentially interchangeable” elements would; but on the other hand, arguing that exchanging a sulfur for an oxygen to create a new functional group would predictably result in the new functional group being more oxidatively stable.

The substitution of a carbamothioate for a carbamate is an inventive, experimental exercise in which one functional group in a molecule is exchanged for another functional group. The properties of the resulting molecule containing the new functional group cannot be known until the molecule is made and tested. The Office, in arguing conversely and

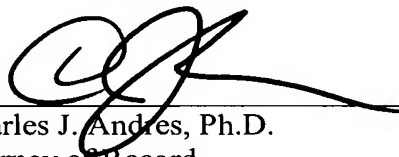
simultaneously that: 1) exchange of sulfur for oxygen to create a new functional group not described by any of the references the Office has cited, because chalcogens are “essentially interchangeable,” would thus expected to produce compounds with identical properties, as “essentially interchangeable” elements would be expected to have no effect; and, 2) that a positive effect would be predicted by this substitution; validates the fact that the properties of the resulting molecule containing the new functional group cannot be known or predicted until the molecule is made and tested.

Withdrawal of the obviousness rejection is requested.

Applicants submit the present application is now in condition for allowance. Early notification to this effect is earnestly solicited.

Respectfully submitted,

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